

Conclusions: This study demonstrated DES showed the same early, late and very late thrombosis rate as BMS. In long term follow up, whether DM or non-DM patients, DES had similar 5-year re-infarction rate and cardiovascular death as BMS in Asian patients after AMI.

TCT-187

Mid-term Clinical Outcomes after Polytetrafluoroethylene (PTFE)-covered Stent Implantation

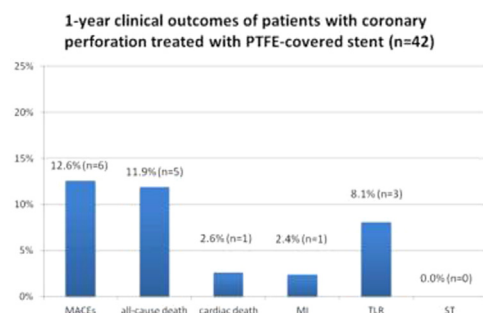
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Background: Polytetrafluoroethylene (PTFE)-covered stents have improved the in-hospital clinical outcomes of patients with coronary perforation. However, there are a few reports regarding their long-term outcomes.

Methods: We analyzed data that was prospectively collected from 17277 patients who underwent percutaneous coronary intervention in New Tokyo Hospital between January 2004 and December 2012. Of the total, we identified 238 (1.38%) patients with coronary perforation. We then evaluated their mid-term clinical outcomes. The study endpoints were major adverse cardiac events (MACEs), defined as cardiac death, myocardial infarction (MI), and target lesion revascularization (TLR). Furthermore, individual parameters, including all-cause death, cardiac death, MI, TLR and stent thrombosis (ST) during the follow-up period, were evaluated.

Results: Among the 238 patients with coronary perforation, 42 (17.6%) were treated with PTFE-covered stents. All patients were followed-up for over 6 months (median follow-up period, 1015 days; interquartile range, 401–1739 days). Although the all-cause death rate was relatively high, at 11.9% because of complications associated with coronary perforation, the cardiac death rate was 2.6% at 1 year (Figure). TLR occurred in 5 patients, and it occurred within 3 months in 3 of these patients. MI occurred in 1 patient because of side branch occlusion following PTFE-covered stent implantation. No definite or probable ST was found.



Conclusions: The 1-year cardiac death rate of 2.6% in this study indicates a better mid-term clinical outcome of PTFE-covered stenting for coronary perforation.

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Two-Year Clinical Outcome of Patients With Bifurcation Lesions Treated With Second-generation Zotarolimus-Eluting Resolute Stents and Everolimus-Eluting Xience V Stents in the Randomized TWENTE Trial

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Background: The aim of this study was to investigate safety and efficacy of second-generation zotarolimus-eluting Resolute stents and everolimus-eluting Xience V stents in bifurcation lesions.

Methods: In TWENTE – a prospective, randomized DES trial – PCI patients were randomized for treatment with contemporary Resolute or Xience V stents. Clinical endpoints were adjudicated by an external independent clinical events committee (Cardialysis CRO, Rotterdam, The Netherlands). Target vessel failure (TVF; cardiac death, target vessel-related myocardial infarction, and clinically-indicated target vessel revascularization), the primary endpoint of the TWENTE trial, was assessed after 2 years.

Results: Among the 1,391 patients of the TWENTE trial, 362 (26%) patients were treated for at least one bifurcation lesion. Of these patients, 179 and 183 were randomized for treatment with Resolute and Xience V stents, respectively. At 2-year follow-up, TVF (12.8% vs. 11.5%; p=0.69) and a patient-oriented composite endpoint (17.3% vs. 16.9%; p=0.92) did not differ significantly between stent arms. In addition, rates of definite and/or probable stent thrombosis were low and similar for both stent arms (0.6% vs. 0.5%; p=0.99). Within 213 (15.3%) patients, who were treated for bifurcation lesions with an additional treatment of the side-branch, there was also no significant difference in TVF between patients treated with Resolute (n=98) and Xience V (n=115) (8.2% vs. 11.3%; p=0.44).

Conclusions: Treatment of bifurcation lesions with Resolute and Xience V stents resulted in favorable and similar outcomes after 2 years in the randomized TWENTE trial.

	Bifurcation treatment (N = 362)		Difference (95% CI)	p value
	Zotarolimus-Eluting Resolute stent (N = 179)	Everolimus-Eluting Xience V stent (N = 183)		
Target vessel failure	23 (12.8)	21 (11.5)	1.4 (-5.4 to 8.1)	0.69
Death				
Any cause	9 (5.0)	4 (2.2)	2.8 (-1.0 to 6.7)	0.15
Cardiac cause	4 (2.2)	2 (1.1)	1.1 (-1.5 to 3.8)	0.40
Target vessel related MI				
Any	14 (7.8)	14 (7.7)	0.2 (-5.4 to 5.7)	0.95
PMI	13 (7.3)	12 (6.6)	0.7 (-4.6 to 6.0)	0.79
Clinically indicated TVR				
Any	7 (3.9)	8 (4.4)	-0.5 (-4.6 to 3.7)	0.83
Patient-oriented composite end-point	31 (17.3)	31 (16.9)	0.4 (-7.4 to 8.2)	0.92
Definite ST (0-720 days)	1 (0.6)	1 (0.5)	0.0 (-1.5 to 1.5)	0.99
Definite or probable ST (0-720 days)	2 (1.1)	1 (0.5)	0.6 (-1.3 to 2.4)	0.55
Very late definite or probable ST (361-720)	1 (0.6)	1 (0.6)	0.0 (-1.5 to 1.5)	0.99